* Duplicate **

Work Order ID 84271

84271

Tuesday, May 29, 2012 8:49:30 AM

Item ID: D4544-1 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Retainer, Center

Start Date: 5/8/2012 **Start Qty:** 2.00 *2* **Cust Item ID:**

Required Date: 5/22/2012 **Req'd Qty:** 2.00 *2* **Customer:**

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Stop** *NR2*

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
D4544	~~A~~ B								
100	Manufacture as per dwg	0.00							
100									
Mill Conv	**Memo**	0.00	12-5-28			2			
Conventional Milling Machine	mill as per dwg								
110	QC5- Inspect part completeness to step on W/O	0.00							
110									
QC	**Memo**	0.00	12.05-28			2	0		
Quality Control									
115		0.00	SB 12/05/28			(1)			PTO ~~Last Page~~
115									
Small Fab	**Memo**	0.00							
Small Fab	FORM AS PER DWG					0	0	12-05-29	

Dart Aerospace Ltd

W/O: 84271		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D4544-1 PAR #: _____ Fault Category: Small Tab NCR: Yes / No DQA: [signature] Date: 12/06/12

Resolution: Scrap Disposition: Scrap QA: N/C Closed: [signature] Date: 12/6/12

NCR: 12-1471		WORK ORDER NON-CONFORMANCE (NCR) # 481.74						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12/05/12	115	1 part over at the bend R.C process/EQUIPMENT	[signature] OSEP12	Susp + destroy No replace	SD 12/05/30	[signature] 11/6/31	[signature] OSEP12	[signature] 12 05 12

NOTE: Date & initial all entries

Work Order ID 84271

84271

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Revision ID: **Stop** *NS2*

Item Name: Retainer, Center

Start Date: 5/8/2012 **Start Qty:** 2.00 *2* **Cust Item ID:**

Required Date: 5/22/2012 **Req'd Qty:** 2.00 *2* **Customer:**

Reference:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
117	QC5- Inspect part completeness to step on W/O	0.00				1			12-05-29
117									
QC	**Memo**	0.00							
Quality Control									
120	Chemical Conversion Coat per QSI005 4.1	0.00				1		12-5-29	
120									
HandFinish	**Memo**	0.00							
Hand Finishing									
130	QC7-Inspect Chemical Conversion Coat	0.00				1		12-05-29	
130									
QC	**Memo**	0.00							
Quality Control									

Work Order ID 84271

Tuesday, May 29, 2012 8:49:30 AM

84271

Item ID: D4544-1 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Retainer, Center

Start Date: 5/8/2012 **Start Qty:** 2.00 *2* **Cust Item ID:**

Required Date: 5/22/2012 **Req'd Qty:** 2.00 *2* **Customer:**

Reference:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Identify as per dwg & Stock Location:_____	0.00							
140						2	0		12-05-29
Packaging	**Memo**	0.00							
Packaging									
150	QC21- Final Inspection - Work Order Release	0.00							
150									12/5/30
QC	**Memo**	0.00							
Quality Control									

MF
12-05-30

Picklist Print

Tuesday, May 29, 2012 8:49:30 AM

Work Order ID: 84271

Parent Item: D4544-1 **Start Date:** 5/8/2012 **Required Date:** 5/22/2012

Parent Item Name: Retainer, Center **Start Qty:** 2.00 **Required Qty:** 2.00

Comments: IPP revA 12.01.17 new issue EC verified by:DD IPP REV:B 12.02.24 as per dwg reva DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B0.250X02.000		Purchased	No			100	f	45.0600	3.95	**8.3157895**			
6061-T6 Bar .250 X 2.00													

Location	Loc Qty	Loc Code
MAT001	45.06	
107436	33.06	
121836	12	

.500

1.250 X 2.50 12.05.29.

121192

8.4 12-5-28

DART AEROSPACE LTD	Work Order:	84271
Description: Retainer Center	Part Number:	4544-1
Inspection Dwg: 4544 Rev: B		Page 1 of 1

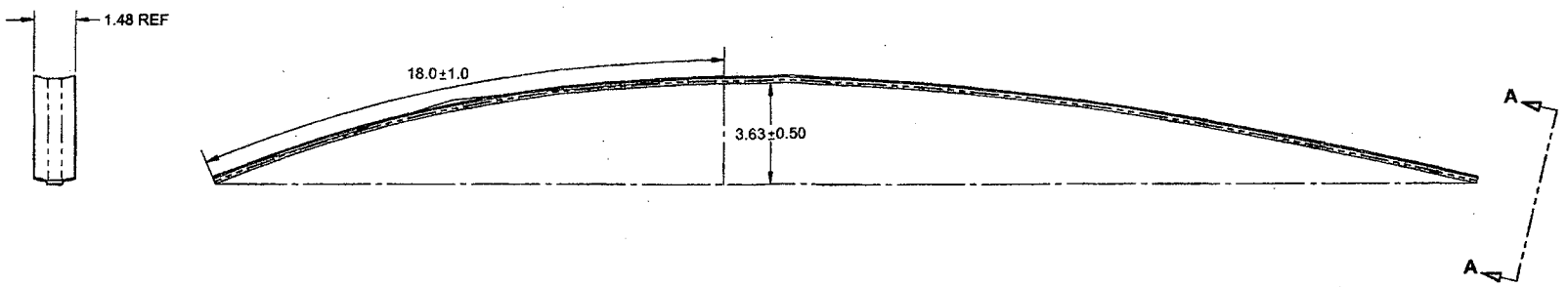
FIRST ARTICLE INSPECTION CHECKLIST

[X] First Article [ ] Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
46.00	±.030	46.00	—		RA04	TAPE
.468	±.010	.460	—		RA26	Vern
.565	±.010	.568	—		RA26	Vern
1.50	±.030	1.497	—		RA26	Vern
R.031	±.010	R.032	—		Red Cutter	
.150	±.010	.153	—		RA26	Vern
.055	±.010	.059	—		"	"

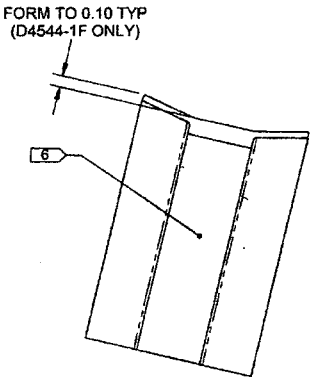
Measured by:		Audited by:		Prototype Approval:	N/A
Date:	12-5-28	Date:	12-05-28	Date:	N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	



D4544-1 RETAINER, CENTER

w/o 84271



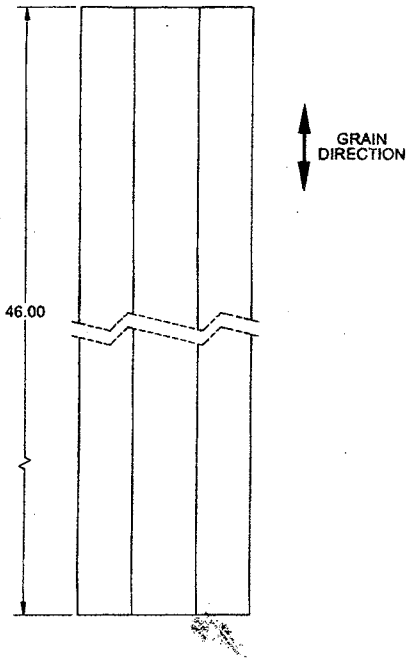
VIEW A-A
SCALE 4X
CROPPED VIEW

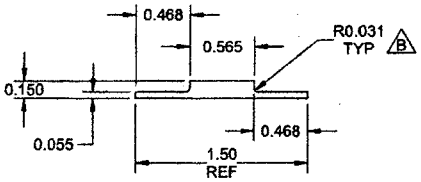
RELEASED
2012 -05- 07

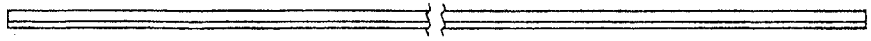
NOTES:
1) MATERIAL: MAKE FROM D4544-1F OR D4544-3-460
FLAT LENGTH = 46.00"
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: N/A
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4544-1" AND B/N PER DART QSI 044 6.1
7) WEIGHT: 0.61 lbs

REV.	DESCRIPTION	BY	DATE
B	ADD -1F (WAS -1); ADD -3; -1 NOW BENT AND FORMED, R0.031 WAS R0.015 (B6-2)	CP	12.04.20
A	NEW ISSUE	CP	12.01.09

DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN		
CHECKED	ALS	DRAWING NO. D4544 REV. B
MFG. APPR.		SHEET 1 OF 3
APPROVED		TITLE RETAINER, CENTER SCALE NTS
DE APPR.		
DATE	12.04.20	







W/O 84271

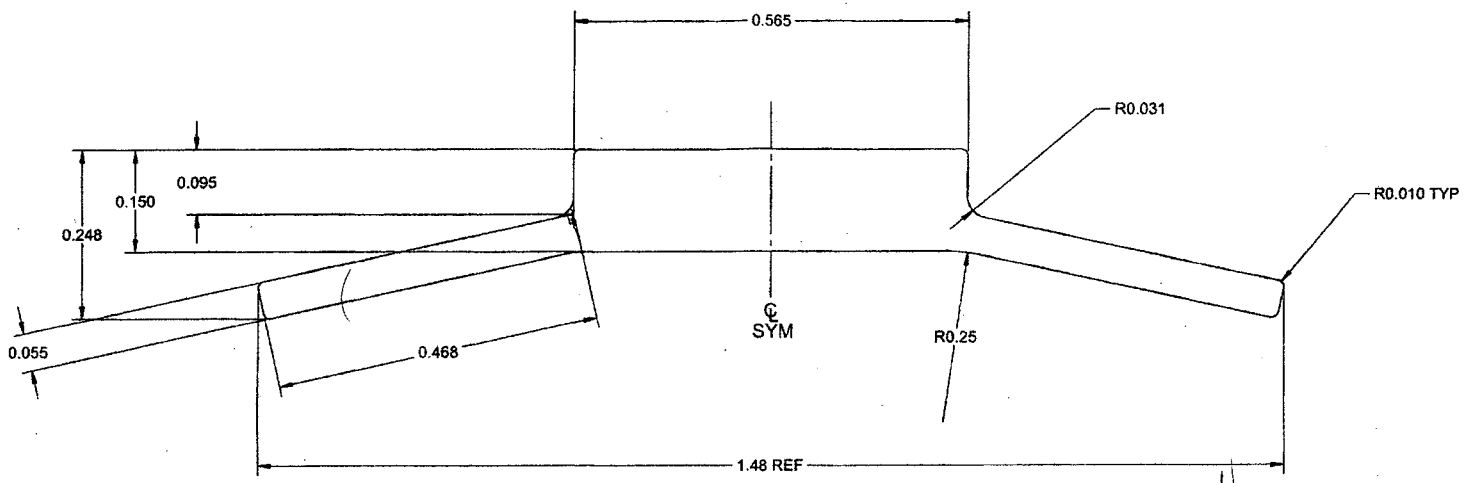
RELEASED
2012 -05- 07

D4544-1F RETAINER, CENTER

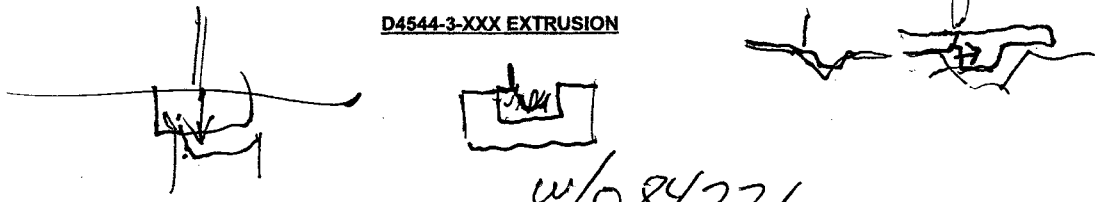
NOTES:
1) MATERIAL: 6061-T6 ALUMINUM SHEET OR BAR
QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR QQ-A-250/11 OR AMS-QQ-A-250/11 (OR AMS 4025/4027)
OR ASTM B211 OR ASTM B221 OR ASTM B209
REF DART SPEC. M6061T6S OR M6061T6B
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: 0.61 lbs

DESIGN		**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN		DRAWING NO. D4544 REV. B
CHECKED		SHEET 2 OF 3
MFG. APPR.		TITLE RETAINER, CENTER SCALE NTS
APPROVED		
DE APPR.		
DATE 12.04.20		

SPECIFICATION CONTROL DRAWING



D4544-3-XXX EXTRUSION



w/084271

RELEASED
2012 -05- 07

RELEASED
2012 -05- 07

NOTES:
1) D4544-3-XXX EXTRUSION
LENGTH
WHERE 'XXX' IS LENGTH IN TENTHS OF AN INCH
EG. 46" LONG EXTRUSION = D4544-3-460

2) MATERIAL: 6061-T6 ALUMINUM EXTRUSION PER QQ-A-200/8 OR AMS-QQ-A-200/8 OR ASTM B221
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: 0.0137 lb/in
8) NO TOOLING ID MARKS

DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN		
CHECKED		DRAWING NO. D4544 REV. B
MFG. APPR.		SHEET 3 OF 3
APPROVED		TITLE RETAINER, CENTER SCALE NTS
DE APPR.		
DATE 12.04.20		

Table 1 Typical full annealing treatments for some common wrought aluminum alloys (a)

Alloy	Metal temperature °C	Metal temperature °F	Approximate time at temperature, h
1060	345	650	(b)
1100	345	650	(b)
1350	345	650	(b)
2014	415	775(c)	2-3
2017	415	775(c)	2-3
2024	415	775(c)	2-3
2036	385	725(c)	2-3
2117	415	775(c)	2-3
2124	415	775(c)	2-3
2219	415	775(c)	2-3
3003	415	775	(b)
3004	345	650	(b)
3105	345	650	(b)
5005	345	650	(b)
5050	345	650	(b)
5052	345	650	(b)
5056	345	650	(b)
5083	345	650	(b)
5086	345	650	(b)
5154	345	650	(b)
5182	345	650	(b)
5254	345	650	(b)
5454	345	650	(b)
5456	345	650	(b)
5457	345	650	(b)
5652	345	650	(b)
6005	415	775(c)	2-3
6009	415	775(c)	2-3
6010	415	775(c)	2-3
6053	415	775(c)	2-3
6061	415	775(c)	2-3
6063	415	775(c)	2-3
6066	415	775(c)	2-3
7001	415	775(d)	2-3
7005	345	650(e)	2-3
7049	415	775(d)	2-3
7050	415	775(d)	2-3
7075	415	775(d)	2-3
7079	415	775(d)	2-3
7178	415	775(d)	2-3
7475	415	775(d)	2-3
Brazing Sheet			
Nos. 11 and 12	345	650	(b)
Nos. 21 and 22	345	650	(b)
Nos. 23 and 24	345	650	(b)

(a) These treatments anneal the material to the "O" temper. The treatments listed in this table are typical for various sizes and methods of manufacture and may not exactly describe the optimum treatment for a specific item. (b) Time in the furnace need not be longer than necessary to bring all parts of load to annealing temperature. Rate of cooling is unimportant. (c) These treatments are intended to remove effects of solution heat treatment and include cooling at rate of about 30 °C (50 °F) per hour from the annealing temperature to 260 °C (500 °F). The rate of subsequent cooling is unimportant. Treatment at 345 °C (650 °F), followed by uncontrolled cooling, may be used to remove the effects of cold work, or to partially remove the effects of heat treatment. (d) This treatment is intended to remove the effects of solution heat treatment and includes cooling at an uncontrolled rate to 205 °C (400 °F) or less, followed by reheating to 230 °C (450 °F) for 4 h. Treatment at 345 °C (650 °F), followed by uncontrolled cooling, may be used to remove the effects of cold work, or to partially remove the effects of heat treatment. (e) Cooling rate to 205 °C (400 °F) or lower is less than or equal to 30 °C (50 °F) per hour.

Table 1 (continued)

Alloy	Product form	Solution heat treatment(a) Metal temperature(b) °C	°F	Temper designation	Precipitation heat treatment Metal temperature(b) °C	°F	Time(c), h	Temper designation
2219(f)	Extruded rod, bar, shapes and tube	535	995	T31(d)	190	375	18	T81(d)
				T3510(e)	190	375	18	T8510(e)
				T3511(e)	190	375	18	T8511(e)
				T42	190	375	36	T62
	Die forgings and rolled rings	535	995	T4	190	375	26	T6
	Hand forgings	535	995	T4	190	375	26	T6
				T352(j)	175	350	18	T852(j)
2618	Forgings and rolled rings	530	985	T4	200	390	20	T61
4032	Die forgings	510(h)	950(h)	T4	170	340	10	T6
6005	Extruded rod, bar, shapes and tube	530(n)	985(n)	T1	175	350	8	T5
6009(p)	Coiled sheet	555	1030	T4	175	350	8	T6
6010(p)	Coiled sheet	565	1050	T4	175	350	8	T6
6053	Die forgings	520	970	T4	170	340	10	T6
6061(f)	Sheet	530	985	T4	160	320	18	T6
				T42	160	320	18	T62
	Plate	530	985	T4(q)	160	320	18	T6(q)
				T42	160	320	18	T62
				T451(e)	160	320	18	T651(e)
	Rolled or cold finished wire, rod and bar	530	985	T4	160(r)	320(r)	18	T6
					160(r)	320(r)	18	T89(d)
					160(r)	320(r)	18	T93(s)
					160(r)	320(r)	18	T913(s)
					160(r)	320(r)	18	T94(s)
				T42	160(r)	320(r)	18	T62
				T451(e)	160(r)	320(r)	18	T651(e)
	Extruded rod, bar, shapes and tube	530(n)	985(n)	T4	175	350	8	T6
				T4510(e)	175	350	8	T6510(e)
				T4511(e)	175	350	8	T6511(e)
		530	985	T42	175	350	8	T62

(continued)

(a) Material should be quenched from the solution-treating temperature as rapidly as possible and with minimum delay after removal from the furnace. When material is quenched by total immersion in water, unless otherwise indicated, the water should be at room temperature, and should be suitably cooled so that it remains below 38 °C (100 °F) during the quenching cycle. Use of high-velocity, high-volume jets of cold water also is effective for some materials. (b) The nominal temperatures listed should be attained as rapidly as possible and maintained within ±6 °C (±10 °F) of nominal during the time at temperature. (c) Approximate time at temperature. The specific time will depend on the time required for the load to reach temperature. The times shown are based on rapid heating, with soak time measured from the time the load reaches a temperature within 6 °C (10 °F) of the applicable temperature. (d) Cold working subsequent to solution heat treatment and prior to any precipitation heat treatment is necessary to attain the specified properties for this temper. (e) Stress relieved by stretching to produce a specified amount of permanent set subsequent to solution heat treatment and prior to any precipitation heat treatment. (f) These heat treatments also apply to alclad sheet and plate in these alloys. (g) An alternative treatment of 8 h at 177 °C (350 °F) also may be used. (h) Solution heat treatment is followed by quenching in water 60 to 82 °C (140 to 180 °F). (j) Stress relieved by 1 to 5% cold reduction subsequent to solution heat treatment and prior to precipitation heat treatment. (k) Solution heat treatment is followed by quenching in water at 100 °C (212 °F). (m) Solution heat treatment is followed by quenching in room-temperature air blast. (n) By suitable control of extrusion temperature, product may be quenched directly from extrusion press to provide specified properties for this temper. Some products may be adequately quenched in room-temperature air blast. (p) See U.S. Patent 4 082 578. (q) Applicable to tread plate only. (r) An alternative treatment of 8 h at 171 °C (340 °F) also may be used. (s) Cold working subsequent to precipitation heat treatment is necessary to attain the specified properties for this temper. (t) An alternative treatment of 3 h at 182 °C (360 °F) also may be used. (u) An alternative treatment of 6 h at 182 °C (360 °F) also may be used. (v) No solution heat treatment; 72 h at room temperature following press quench, followed by two-stage precipitation heat treatment comprised of 8 h at 107 °C (225 °F) plus 16 h at 149 °C (300 °F). (w) Aging practice varies with product, size, nature of equipment, loading procedures and furnace-control capabilities. The optimum practice for a specific item can be ascertained only by actual trial treatment of the item under specific conditions. Typical procedures involve a two-stage treatment comprised of 3 to 30 h at 121 °C (250 °F) followed by 15 to 18 h at 163 °C (325 °F) for extrusions. An alternative two-stage treatment of 8 h at 99 °C (210 °F) followed by 24 to 28 h at 163 °C (325 °F) also may be used. (x) Aging of aluminum alloys 7050, 7075, 7175 and 7475 from any temper to the T73 or T76 temper series requires closer-than-normal controls on aging variables such as time, temperature, heatup rate, etc., for any given item. In addition, when material in a T6-type temper is reaged to a T73- or T76-type temper, the specific condition of the T6 material (such as property levels and other effects of processing variables) is extremely important and will affect the capability of the reaged material to conform to the requirements specified for the applicable T73- or T76-type temper. (y) Two-stage treatment comprised of 6 to 8 h at 107 °C (225 °F) followed by: 24 to 30 h at 163 °C (325 °F) for sheet and plate; 8 to 10 h at 177 °C (350 °F) for rolled or cold finished rod and bar; 6 to 8 h at 177 °C (350 °F) for extrusions and tube; 8 to 10 h at 177 °C (350 °F) for forgings in the T73 temper and 6 to 8 h at 177 °C (350 °F) for forgings in the T7352 temper. (z) An alternative two-stage treatment comprised of 4 h at 96 °C (205 °F) followed by 8 h at 157 °C (315 °F) also may be used. (aa) For sheet, plate, tube and extrusions, an alternative two-stage treatment comprised of 6 to 8 h at 107 °C (225 °F) followed by 14 to 18 h at 168 °C (335 °F) may be used, provided that a heatup rate of approximately 14 °C/h (25 °F/h) is employed. For rolled or cold finished rod and bar, the alternative treatment is 10 h at 177 °C (350 °F). (bb) An alternative three-stage treatment comprised of 5 h at 99 °C (210 °F), 4 h at 121 °C (250 °F) and then 4 h at 149 °C (300 °F) also may be used. (cc) 7175-T736 and -T73652 heat treatments are directed to specific results, may vary from supplier to supplier and are either proprietary or patented. (dd) Must be preceded by soak at 466 to 477 °C (870 to 890 °F). See U.S. Patent 3 791 880.

Table 1 (continued)

Alloy	Product form	Solution heat treatment(a) Metal temperature(b) °C	°F	Temper designation	Precipitation heat treatment Metal temperature(b) °C	°F	Time(c), h	Temper designation
6061(f)	Drawn tube	530	985	T4	160(r)	320(r)	18	T6
				T42	160(r)	320(r)	18	T62
	Die and hand forgings	530	985	T4	175	350	8	T6
	Rolled rings	530	985	T4	175	350	8	T6
				T452(j)	175	350	8	T652(j)
6063	Extruded rod, bar, shapes and tube	(n)	(n)	T1	205(t)	400(t)	1	T5
		520(n)	970(n)	T4	175(u)	350(u)	8	T6
		520	970	T42	175(u)	350(u)	8	T62
	Drawn tube	520	970	T4	175	350	8	T6
					175	350	8	T83(d)(n)
					175	350	8	T831(d)(n)
					175	350	8	T832(d)(n)
				T42	175	350	8	T62
6066	Extruded rod, bar, shapes and tube	530	990	T4	175	350	8	T6
				T42	175	350	8	T62
				T4510(e)	175	350	8	T6510(e)
				T4511(e)	175	350	8	T6511(e)
	Drawn tube	530	990	T4	175	350	8	T6
				T42	175	350	8	T62
	Die forgings	530	990	T4	175	350	8	T6
6070	Extruded rod, bar, shapes and tube	545(n)	1015(n)	T4	160	320	18	T6
				T42	160	320	18	T62
6151	Die forgings	515	960	T4	170	340	10	T6
	Rolled rings	515	960	T4	170	340	10	T6
				T452(j)	170	340	10	T652(j)
6262	Rolled or cold finished wire, rod and bar	540	1000	T4	170	340	8	T6
					170	340	12	T9(s)
				T451	170	340	8	T651(e)
				T42	170	340	8	T62

(continued)

(a) Material should be quenched from the solution-treating temperature as rapidly as possible and with minimum delay after removal from the furnace. When material is quenched by total immersion in water, unless otherwise indicated, the water should be at room temperature, and should be suitably cooled so that it remains below 38 °C (100 °F) during the quenching cycle. Use of high-velocity, high-volume jets of cold water also is effective for some materials. (b) The nominal temperatures listed should be attained as rapidly as possible and maintained within ±6 °C (±10 °F) of nominal during the time at temperature. (c) Approximate time at temperature. The specific time will depend on the time required for the load to reach temperature. The times shown are based on rapid heating, with soak time measured from the time the load reaches a temperature within 6 °C (10 °F) of the applicable temperature. (d) Cold working subsequent to solution heat treatment and prior to any precipitation heat treatment is necessary to attain the specified properties for this temper. (e) Stress relieved by stretching to produce a specified amount of permanent set subsequent to solution heat treatment and prior to any precipitation heat treatment. (f) These heat treatments also apply to alclad sheet and plate in these alloys. (g) An alternative treatment of 8 h at 177 °C (350 °F) also may be used. (h) Solution heat treatment is followed by quenching in water 60 to 82 °C (140 to 180 °F). (j) Stress relieved by 1 to 5% cold reduction subsequent to solution heat treatment and prior to precipitation heat treatment. (k) Solution heat treatment is followed by quenching in water at 100 °C (212 °F). (m) Solution heat treatment is followed by quenching in room-temperature air blast. (n) By suitable control of extrusion temperature, product may be quenched directly from extrusion press to provide specified properties for this temper. Some products may be adequately quenched in room-temperature air blast. (p) See U.S. Patent 4 082 578. (q) Applicable to tread plate only. (r) An alternative treatment of 8 h at 171 °C (340 °F) also may be used. (s) Cold working subsequent to precipitation heat treatment is necessary to attain the specified properties for this temper. (t) An alternative treatment of 3 h at 182 °C (360 °F) also may be used. (u) An alternative treatment of 6 h at 182 °C (360 °F) also may be used. (v) No solution heat treatment; 72 h at room temperature following press quench, followed by two-stage precipitation heat treatment comprised of 8 h at 107 °C (225 °F) plus 16 h at 149 °C (300 °F). (w) Aging practice varies with product, size, nature of equipment, loading procedures and furnace-control capabilities. The optimum practice for a specific item can be ascertained only by actual trial treatment of the item under specific conditions. Typical procedures involve a two-stage treatment comprised of 3 to 30 h at 121 °C (250 °F) followed by 15 to 18 h at 163 °C (325 °F) for extrusions. An alternative two-stage treatment of 8 h at 99 °C (210 °F) followed by 24 to 28 h at 163 °C (325 °F) also may be used. (x) Aging of aluminum alloys 7050, 7075, 7175 and 7475 from any temper to the T73 or T76 temper series requires closer-than-normal controls on aging variables such as time, temperature, heatup rate, etc., for any given item. In addition, when material in a T6-type temper is reaged to a T73- or T76-type temper, the specific condition of the T6 material (such as property levels and other effects of processing variables) is extremely important and will affect the capability of the reaged material to conform to the requirements specified for the applicable T73- or T76-type temper. (y) Two-stage treatment comprised of 6 to 8 h at 107 °C (225 °F) followed by: 24 to 30 h at 163 °C (325 °F) for sheet and plate; 8 to 10 h at 177 °C (350 °F) for rolled or cold finished rod and bar; 6 to 8 h at 177 °C (350 °F) for extrusions and tube; 8 to 10 h at 177 °C (350 °F) for forgings in the T73 temper and 6 to 8 h at 177 °C (350 °F) for forgings in the T7352 temper. (z) An alternative two-stage treatment comprised of 4 h at 96 °C (205 °F) followed by 8 h at 157 °C (315 °F) also may be used. (aa) For sheet, plate, tube and extrusions, an alternative two-stage treatment comprised of 6 to 8 h at 107 °C (225 °F) followed by 14 to 18 h at 168 °C (335 °F) may be used, provided that a heatup rate of approximately 14 °C/h (25 °F/h) is employed. For rolled or cold finished rod and bar, the alternative treatment is 10 h at 177 °C (350 °F). (bb) An alternative three-stage treatment comprised of 5 h at 99 °C (210 °F), 4 h at 121 °C (250 °F) and then 4 h at 149 °C (300 °F) also may be used. (cc) 7175-T736 and -T73652 heat treatments are directed to specific results, may vary from supplier to supplier and are either proprietary or patented. (dd) Must be preceded by soak at 466 to 477 °C (870 to 890 °F). See U.S. Patent 3 791 880.